



ANNUAL REPORT

Arizona Pollutant Discharge Elimination System (AZPDES)
Small Municipal Separate Storm Sewer System (MS4) General Permit
(AZG2016-002)

Regulated Small Municipal Separate Storm Sewer Systems (MS4s) must submit an Annual Report (AR) to the Arizona Department of Environmental Quality (ADEQ) before September 30 each year. Permittees must complete an Annual Report and submit the original, signed document to:

Arizona Department of Environmental Quality
Surface Water Section/Stormwater & General Permits Unit (5415A-1)
1110 West Washington Street, Phoenix, AZ 85007

A. REGULATED SMALL MS4 INFORMATION

Annual Report for Reporting Year: 20 1 7 - 20 1 8

LTF Number: 65749 Name of MS4: Maricopa County

Primary Contact: Marcella McDonald Title: Program Supervisor

Mailing Address: 2222 South 27th Avenue

City: Phoenix Zip Code: 8 5 0 4 County: Maricopa

Telephone Number: 602-377-0892 Email Address: mmcdonald@mail.maricopa.gov

☐ Non-Traditional MS4 ☒ City/County Estimated Population: 150,000

Is another entity responsible for any satisfying any permit requirements (6.4b):

☐ Yes ☒ No

If yes, complete the following questions; if no, continue to Section B.

Provide a description of permit requirements being implemented by another entity:

Type of Legally-binding Agreement:

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B. MAPPING (4.0 and 8.4(b))

1. Provide a narrative description of the permittee's mapping progress:

Stormwater sewer system mapping of the UUA is 100% complete for all known structures. Maricopa County will continue to update the MS4 structural inventory as needed to reflect the required elements within the ADEQ General MS4 Permit.

2. Number of outfalls currently mapped:

389

3. Outfall mapping – Percent Complete:

100

4. Storm Sewer System Mapping

Percentage Complete: 100

5. Identification of Waters of the U.S. that receive discharges from the outfalls

Percentage Complete: 100

6. Has land been annexed into the MS4 since the previous reporting year: ☐ Yes ☒ No (4.2).

If yes, complete the following:

a) Total area annexed since last annual report: 0 acres

b) Mapping of new area – Percent complete:

c) Are BMPs fully implemented in annexed area: ☐ Yes ☐ No

d) Provide a description of BMP implementation for areas annexed into the regulated MS4 since the last reporting period:

N/A

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C. PROGRAM EVALUATION (8.1.1 and 8.4d)

Provide a written assessment of the appropriateness of identified best management practices and progress toward achieving identified measurable goals for each minimum control measure.

In accordance with the Arizona Department of Environmental Quality (ADEQ) Small Municipal Separate Stormwater Sewer System (MS4) General permit, the Maricopa County Stormwater Quality Program (MCSQP) continues to implement their existing Stormwater Management Plan (SWMP). The Best Management Practices (BMPs) for each of the six(6) Minimum Control Measures (MCM) have been assessed and the County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

MCM1: Public Education and Outreach.

The approved SWMP commits the County to distribute 500 brochures or educational material to the public. The outreach education program distributed 3,015 educational materials and 5,531 promotional items. A selection of educational items are made available in both English and Spanish and contained an educational stormwater pollution prevention message. In addition to printed materials, the message to identify and prevent stormwater pollution is effectively provided to the public using several different mediums including educational workshops, public events, and a variety of social media outlets.

The School Outreach Program focuses on in person classroom education. This focus continues to be successfully accomplished through the use of five (5) classroom workshops developed by the program. These hands-on, grade specific workshops are regularly presented to the K-8 students throughout Maricopa County. The MCSQP has one full time Outreach Coordinator who has conducted 123 educational workshops that reached 3,180 students in 13 cities. Assessment of the stormwater pollution prevention message is achieved through the assay of surveys that are completed by the students. The survey results show on average after attending a workshop, 73% of students understand stormwater goes to our local waterways, and 79% of students also recognize that urban runoff is a leading cause of pollution in water. The survey results reflect that the educational workshops are an extremely effective forum for sharing our stormwater pollution prevention message.

The permit requires for the County to have a target audience. Our population is too separated in island areas to focus on a specific population type; therefore, use of demographic information from the Census Bureau is required to make a determination on the average population group that might exist in our UUA. According to the 2010 Federal Census Bureau, 60% of the population in Maricopa County is white, 30% is Hispanic, and other cultures are less than 10% of the remaining population. No known pollution concern exists for the cultural activities associated with the known population groups in the Unincorporated Urbanized Area; therefore, English and Spanish language speaking general public, and school children, as approved in the SWMP, remains an appropriate target audience.

In an effort to reach as much of our diverse population as possible, public events are offered throughout Maricopa County. This year's public event venues were located at local libraries, Maricopa County Parks, the Phoenix Zoo, school STEM (Science, Technology, Engineering and Math) events, the MC Fair, and the Phoenix Convention Center. Program staff participated in 17 events which reached 2,148 people.

The MCSWQP created the Efficiency Matrix to assess the effectiveness of the number of people reached at the events. Public events have proven to be an efficient way to convey our stormwater pollution prevention message to a large and diverse population in a short amount of time. Survey analysis from those events confirms that customers are understanding the program's message.

Our web site offers educational outreach information, resources and information pertaining to our construction permitting program. Google Analytics is used to capture web site activity. A total of 12,854 web page views and 588 downloads were recorded. As a member of STORM (Stormwater Outreach for Regional Municipalities), MC supported STORM's efforts to collaborate with ABC News 15 and Facebook. The social media campaign delivered a stormwater pollution prevention message 2,330,272 times with 3,176,347 impressions and 48,727 clicks were captured.

Assessment results: The County has achieved permit compliance through the strategic actions and activities that are documented in the SWMP and results shown in this annual report. The County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

(ADEQ)



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C. PROGRAM EVALUATION (8.1.1 and 8.4d)

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In accordance with the Arizona Department of Environmental Quality (ADEQ) Small Municipal Separate Stormwater Sewer System (MS4) General permit, the Maricopa County Stormwater Quality Program (MCSQP) continues to implement their existing Stormwater Management Plan (SWMP). The Best Management Practices (BMPs) for each of the six(6) Minimum Control Measures (MCM) have been assessed and the County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

MCM 2: Public Involvement and Participation

MCSQP has developed five (5) BMPs that provide the public an opportunity to participate in the review and implementation of the SWMP and to contribute to our stormwater pollution prevention measures through our website, stakeholder meetings, outreach events, and clean-up events.

In order to help our stakeholders have access to correct and timely program information, the Stormwater Quality Program website contains our current Notice of Intent, SWMP, annual reports and our regulatory code.

On September 20, 2017, a stakeholders meeting was held in the form of a webinar with ten (10) people in attendance. The status of the Stormwater Program was reviewed and attendees were given an opportunity for comments.

To encourage public participation and to support our pollution prevention message, MCSQP has continued, with great success, to host a Stormwater Pollution Prevention Poster contest. The poster contest is a collaboration of our program staff, educators, local sponsors and the Maricopa County Board of Supervisors. There were a total of 362 students who participated in the contest. These students ranged from 3rd to 6th grade, and represented 14 different schools. The following sponsors contributed prizes for the winners of the contest: Arizona State Parks, Desert Botanical Gardens, Maricopa County Libraries, Maricopa County Parks, Phoenix Suns, and World Wild Life Zoo.

To evaluate public awareness, increase participation, and assess effectiveness of the stormwater pollution prevention message, a Stormwater survey is offered at all outreach activities as well as online. A total of 1,256 surveys were completed and compiled. Analysis of the survey is done annually to determine public knowledge trends and to align our program message to the concerns and needs of the public.

The website is current and continues to receive downloads and web-page views. Website received 12,854 web page views and 588 downloads.

MCSQP recognizes that program coordination with other County administered programs contributes to our shared goal to protect water quality through the identification, prevention and elimination of stormwater pollution. The Maricopa County Department of Transportation's (MCDOT) Adopt-A-Highway Program organized multiple clean up events with 551 volunteers contributing 2,106 hours that resulted in the collection of 11.01 tons of trash being removed from 120 miles of Maricopa County roadways. The Maricopa County Parks coordinated and over saw shore line clean up events where 453 volunteers spent 1,339 hours removing trash and debris that could have otherwise polluted our recreational lakes and drinking water sources.

Assessment results: The County has achieved permit compliance through the strategic actions and activities that are documented in the SWMP and results shown in this annual report. The County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

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C. PROGRAM EVALUATION (8.1.1 and 8.4d)

Provide a written assessment of the appropriateness of identified best management practices and progress toward achieving identified measurable goals for each minimum control measure.

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MCM 3: Illicit Discharge Detection and Elimination (IDDE) Program

Maricopa County has developed and successfully continues to implement the IDDE program. The BMPs that result from this implementation include mapping of the MS4, a routine inspection schedule of the urbanized, unincorporated area (UUA), a visual outfall monitoring program, citizen complaint response inspections, detection and regulatory processing of non-permitted activity, IDDE training for county employees, intra-agency coordination of the IDDE program, and an annual self-assessment of the program progress.

The UUA of Maricopa County is systematically monitored and inspection activities are stored in our ARC GIS mapping software. Stormwater sewer system mapping of the UUA is 100% complete for all known structures. MC will continue to update the MS4 structural inventory as needed to reflect the required elements within the ADEQ General MS4 Permit.

The MCSQP has two (2) full time inspectors who conduct routine IDDE inspections, complaint response inspections, and visual monitoring outfall inspections. Inspectors completed 1,799 structural inspections and identified two (2) facilities within the UUA that may not have had appropriate AZDEPS/NPDES permit coverage and provided that information to ADEQ.

The visual monitoring program, as outlined in the SWMP, requires 20% of all outfalls be inspected annually and the five representative outfalls receive two (2) inspections per each of the two (2) wet seasons.

There are a total of 389 outfalls. The visual monitoring program produced 272 outfall inspections. There were 237 dry weather inspections and 35 wet weather inspections, resulting in 61% of all outfalls being inspected at least once in FY18. The program has identified the required five (5) representative outfalls. A total of 20 inspections were conducted on the five (5) representative outfalls.

Outfall #234 received two (2) summer season and one (1) winter season inspection due to insufficient rain events.

Outfall #032 received two (2) summer season and two (2) winter season inspections.

Outfall #049 received four (4) summer season and two (2) winter season inspections.

Outfall #005 received one (1) summer season inspection due to insufficient rain events and two (2) winter season inspections.

Outfall #014 received two (2) summer and two (2) winter season inspections.

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C. PROGRAM EVALUATION (8.1.1 and 8.4d)

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MCM 3: Illicit Discharge Detection and Elimination (IDDE) Program

In order to help our stakeholders have access to correct and timely contact information, the program contact information is provided on the website along with a 24 hour citizen complaint hot line number. There were a total of 45 complaints. Complaint types recorded include constructing without a permit, sediment, oils, waste/pool water, dumping, and trash/debris. MC standards requires complaints to be responded to within 15 days. Program staff responded to complaints, on average, within three days. In the case where a Letter of Violation was issued, the recipient has 30 days to provide a response. Letters of Violation issued for confirmed discharges were resolved, on average, within 15 days. There were eight (8) complaints for construction without a permit, three (3) complaints were for the need to obtain post construction permits, 20 complaints were found to have no evidence of illicit discharge at the time of the response inspection and 14 complaints found to support an illicit discharge. A total of 19 Letters of Violation were issued. All complaints and Letters of Violations were resolved without need for further enforcement. The County maintains an employee education program for employees who are involved in the implementation of stormwater BMPs or a practice that is related to stormwater pollution prevention, through online and in person trainings. The MCSQP offers seven (7) IDDE and Good Housekeeping training selections. A total of 491 employees from 15 different departments participated in an IDDE training session. A total of 296 employees received an in person training and 195 employees completed 503 online classes.

The Statement of Responsibility's document was created in November, 2015 and continues to be an effective means of locating lead responsible persons within Maricopa County. The document has been reviewed, personnel contacts have been updated, and each responsible agency has been provided a copy of the current document.

Assessment results: The County has achieved permit compliance through the strategic actions and activities that are documented in the SWMP and results shown in this annual report. The County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

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C. PROGRAM EVALUATION (8.1.1 and 8.4d)

Provide a written assessment of the appropriateness of identified best management practices and progress toward achieving identified measurable goals for each minimum control measure.

MCM 4: Construction Site Stormwater Runoff Control

The County has developed and continues to maintain and enforce our construction activity stormwater runoff control program. BMPs for this measure are outlined in this section. The County has achieved permit compliance through the strategic actions and activities that are documented in the SWMP and results shown in this annual report. The County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the Maximum Extent Practicable (MEP).

- Legal Authority for Construction Compliance and Erosion and Sediment Control Practices
The Environmental Service Department has adopted the Maricopa County Stormwater Quality Management and Discharge Control Regulation and is consistent with the most recent Flood Control District of Maricopa County (FCDMC) MC Drainage and Policies and Standards, MC Drainage Regulations, MC Subdivision Regulations and Floodplain Regulations and the MC Drainage Manual Volume III, Erosion Control. Currently the FCDMC Drainage Policies and Standards Manual for Maricopa County is being revised. Upon completion of the revision, MC will provide the updated version on their web site.
- Inventory, Site Plan Review and Inspection Procedures of Construction Activity Within the UUA
o Program staff maintains an inventory of current and historical construction sites within the programs geographical information system (GIS) mapping software.
o Staff experts have developed written procedures for construction plan review and site inspections. Included in these procedures are schedules for re-inspection and prioritization of completion. The procedures are currently being implemented and enforced through the Maricopa County Stormwater Quality Management and Discharge Control Regulation. A total of 22 site plans were submitted and reviewed.
- o MCSQP has met its measurable goal of inspecting and reporting on construction activity including the number of inspections, complaints, and enforcement actions. Inspectors conducted 16 pre-construction inspections, 51 routine inspections, and two (2) re-inspections. Five (5) BMP violations were noted and corrected. Eight (8) complaints were filed for land disturbance/construction without a permit and eight (8) Letters of Outstanding Violation were generated from those complaints. All violations were resolved without further enforcement action.
- Training, Education and Public Involvement
o Employees responsible for construction site inspections receive annual training.
In addition, employees attended an onsite construction conference hosted by Luke Air Force base through the AZ Water Association and one (1) of the two (2) full time inspectors received specific construction site inspection certification training. Certification training will continue for FY19.
- o Stormwater construction permitting information was incorporated into the Maricopa County Air Quality Dust Abatement training starting in March, 2018 and reached 1,405 participants.
- o The program provides free educational resources on our website, at events, and through direct communication with inspectors and support staff. Google Analytics is used to record construction website activity. There were 373 downloads and 10,979 views pertaining to construction recorded for FY18.
- o In collaboration with STORM, MC participated in a two (2) day construction conference that was open to the public. A total of 95 people from the construction industry participated. Surveys were provided, compiled, and will be used to assist municipal stormwater programs in providing permitting and educational information to the construction industry.

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C. PROGRAM EVALUATION (8.1.1 and 8.4d)

Provide a written assessment of the appropriateness of identified best management practices and progress toward achieving identified measurable goals for each minimum control measure.

MCM 5: Post Construction Stormwater Management

The post construction BMPs inspection program ensures that structural and nonstructural BMPs are developed and implemented as approved and ensures they are maintained over time. BMPs for this measure are effective in accomplishing the requirement to provide plan review, routine inspections, technical guidance, an inventory of stormwater controls, and enforcement of our programs regulations.

MCSQP has meet its measurable goal of inspecting and reporting on construction activity including the number of inspections, complaints, and enforcement actions. A total of four (4) post construction site plans were submitted and reviewed and 31 post construction inspections were conducted. There were no violations noted and no re-inspections were required. There were three (3) complaints with-in this measure that resulted in three (3) Letters of Outstanding Violation for not obtaining required post-construction permit. All violations were corrected and no further enforcement actions were required.

Post construction project inventory is recorded and stored in the programs GIS software. Currently the FCDMC Drainage Policies and Standards Manual for Maricopa County, which is referenced in the MC Regulation, is being revised. Upon completion of the revision, MC will provide the updated version on their web site.

Assessment results: The County has achieved permit compliance through the strategic actions and activities that are documented in the SWMP and results shown in this annual report. The County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations

The BMPs for this measure were developed to address the permit requirement to reduce stormwater pollutant runoff and protect water quality from municipal facility activities. The BMPs for this measure have been assessed and are effective in satisfying those requirements.

An inventory and prioritization inspection schedule of county owned facilities is maintained and updated annually. There are 428 county owned facilities. There are 46 county facilities that are considered to be priority facilities and 382 are non-priority. The SWMP requires the County to provide annual inspections on a minimum of 20% of all facilities and all priority facilities will receive at least one annual inspection. All 46 priority facilities received an annual inspection and 164 inspections were conducted at non-priority facilities resulting in 54% of all facilities being inspected.

The Equipment Services Department (EQSR) and the Waste Resources and Recycling Division (WRR) maintain a self-inspection program. EQSR performs routine and comprehensive Stormwater Pollution Prevention Plan (SWPPP) type inspections at their four (4) service facilities that resulted in a total of 1,043 inspections. The WRR conducted routine SWPPP inspections at their six (6) landfills and four transfer (4) stations for a total of 70 inspections.

Maricopa County Department of Transportation (MCDOT) Operational and Maintenance Division has 184 full time employees who conduct routine and complaint inspections and repairs of stormwater structures. A total of 14 box culverts and 30 pipes were repaired and 110 stormwater structures were inspected. MCDOT recorded 165 complaints for FY18. The County's street sweeping program conducted 6,912 miles of sweeping during this fiscal year. Maricopa County Flood Control District (MCFCD) Operational and Maintenance Division employs 63 full time staff who routinely maintain MCFCD stormwater structures.

Assessment results: The County has achieved permit compliance through the strategic actions and activities that are documented in the SWMP and results shown in this annual report. The County has shown, through its Best Management Practices, the ability to remove the presumed pollutants to the maximum extent practicable (MEP).

D. MCM-1: PUBLIC EDUCATION AND OUTREACH (6.4.1 and 8.1.2)

D-1. Provide a Summary of Public Education and Outreach BMPs in the Following Table

Best Management Practice	Measurable Goal (how is progress being measured)	Theme or Message	Target Audience	Final Measure of Assessment (5.1.e.3)	Summary of Results and Effectiveness (8.1.2)
1.1 The Environmental Services Department will distribute print material, brochures, and other educational items to increase awareness of stormwater pollution prevention.	Ensure the distribution of 500 educational materials annually. The general public, commercial and residential activities are the targeted audience.	Public Education for the prevention /elimination of stormwater pollution.	General public, commercial and residential activities	There were 3,015 educational materials and 5,531 promotional items were distributed.	Survey results noted increase of awareness of stormwater pollution prevention after the provision of promotional and educational items.
1.2 The Environmental Services Department will maintain a website that provides useful information to the public on stormwater pollution prevention.	Ensure the website is maintained with current and useful information. The general public, commercial and residential activities are the targeted audience.	Education for the prevention /elimination of stormwater pollution and stormwater permitting services	Education and construction industries, general public and businesses	Website is maintained and updated. There were 12,854 webpage views and 588 webpage downloads captured.	Website is current and continues to receive downloads and webpage views. Website received 12,854 web page views and 588 downloads.
1.3 The Environmental Services Department will maintain multimedia activities that utilize but are not limited to social media, newspapers bulletin boards, movie advertisements and more.	1.3 The multimedia outreach activities will be provided for at least four (4) weeks. The general public is the targeted audience.	Education for the prevention /elimination of stormwater pollution	General public and businesses	1.3 Eight (8) month social media campaign delivered a stormwater pollution prevention message 2,330,272 times with 3,176,347 impressions and 48,727 clicks were captured.	1.3 This medium of outreach is efficient in reaching a mass audience and allows for analysis of outreach results that can be modified to reach target audiences.
1.4 The Environmental Services Department will review, modify and record any modifications of ineffective messages.	1.4 Provide stormwater survey during outreach events. Compile and evaluate results for message effectiveness as a part of the Annual Outreach Summarization Report.			1.4 Annual outreach summary report is complete and 1,256 surveys were completed and compiled.	1.4 Surveys have proven to be an effective method to evaluate public awareness, and assess effectiveness of the stormwater pollution prevention message and will continue to be provided in FY19.
1.5 The Environmental Services Department will maintain a student audience and general public outreach event program.	Manned educational booth events will be held each year. The name of the event, message and estimated number of people reached will be reported annually. The school outreach program is driven by school demand, therefore, no minimum number of educational programs can be set. The quantity of educational programs will be record and reported. The target audience for the outreach events is the general public with a primary emphasis on school aged children.	Stormwater pollution prevention education for the reduction/elimination of illicit discharge and illegal dumping within the community and for businesses	General public with a primary emphasis on school aged children.	Staff provided 123 educational workshops that reached 3,180 students in 13 cities and 17 public outreach events reaching 2,148 people.	Both the outreach events and the school outreach program are very effective. School age children are impressionable, and therefore, the importance of continued pollution prevention activities for school age children is imperative for long term behavior change. Additionally, the school outreach program relies on teachers requests. The continued program is an indication of continued success.

D. MCM-1: PUBLIC EDUCATION AND OUTREACH (6.4.1)

D-3. PUBLIC EDUCATION AND OUTREACH (6.4.1)

Provide a summary of activities planned for the next reporting period in the following table

Best Management Practice	Measurable Goal (how is progress being measured)	Summary of Planned Activities	Target Audience
1.1 The Environmental Services Department will distribute print material, brochures, and other educational items to increase awareness of stormwater pollution prevention.	Ensure the distribution of 500 educational materials annually. The general public, commercial and residential activities are the targeted audience.	Continue the distribution of educational materials and develop new materials as needed.	Established and continued in FY19
1.2 The Environmental Services Department will maintain a website that provides useful information to the public on stormwater pollution prevention.	Ensure the website is maintained with current and useful information. The general public, commercial and residential activities are the targeted audience.	Ensure the website is maintained	Established and continued in FY19
1.3 The Environmental Services Department will maintain multimedia activities that utilize but are not limited to social media, newspapers bulletin boards, movie advertisements and more.	1.3 The multimedia outreach activities will be provided for at least four (4) weeks. The general public is the targeted audience.	Ensure multimedia outreach activities are maintained.	Established and continued in FY19
1.4 The Environmental Services Department will review, modify and record any modifications of ineffective messages.	1.4 Provide stormwater survey during outreach events. Compile and evaluate results for message effectiveness as a part of the Annual Outreach Summarization Report.		Established and continued in FY19
1.5 The Environmental Services Department will maintain a student audience and general public outreach event program.	Manned educational booth events will be held each year. The name of the event, message and estimated number of people reached will be reported annually. The school outreach program is driven by school demanded, therefore, no minimum number of educational programs can be set. The quantity of educational programs will be record and reported. The target audience for the outreach events is the general public with a primary emphasis on school aged children.	Stormwater pollution prevention education for the reduction/elimination of illicit discharge and illegal dumping within the community and for businesses	Established and continued in FY19

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D-2. DESCRIPTION OF CHANGES IN IDENTIFIED BMPs OR MEASURABLE GOALS (8.1.3 and 8.4(1))

Have there been any modifications to BMPs during this reporting period: Yes No.

If yes, provide a brief explanation of each modification below.

[illegible]

E. MCM-2: PUBLIC INVOLVEMENT AND PARTICIPATION (6.4.2 and 8.1.2)

E-1. Provide a Summary of Public Involvement and Participation BMPs Implemented During the Reporting Period in the Following Table

Best Management Practice	Measurable Goal (how is progress being measured)	Theme or Message	Target Audience	Target Audience Reached	Summary of Results and Effectiveness (8.1.2)
2.1 The Environmental Services Department will make available the SWMP, Annual Report and other records online.	Maintain the Stormwater Quality Website with information that includes the SWMP, NOI, Annual Report and other records. Update as needed. Web-site activity will be recorded monthly and reported annually	Education for the prevention /elimination of stormwater pollution and stormwater permitting services	Education and construction industries, general public and businesses. (Percent target audience reached is NA)		Survey results noted increase of awareness of stormwater pollution prevention after the provision of promotional and educational items.
2.2 The Environmental Services Department will host a stake holder workshop annually.	The date of the stake holder workshop and the number of attendees will be reported annually.	Education for the prevention /elimination of stormwater pollution and stormwater permitting services	Education and construction industries, general public and businesses. (Percent target audience reached is NA)		A public construction workshop hosted by STORM was held on June 13 and June 20, 2018. There were 95 attendees. The MC Stormwater stakeholder workshop was conducted on September 20, 2017 with ten (10) persons in attendance. Survey results show that the workshops were valuable.
2.3 The Environmental Services Department will provide surveys to the general public. These surveys are used to help spread the message of stormwater pollution prevention and aids in providing feedback to the Maricopa County Stormwater Quality Program.	The amount of surveys provided and received will be recorded monthly and reported annually.	Public Education for the prevention /elimination of stormwater pollution.	General population. (Percent target audience reached is NA).		Surveys are available online and at all public outreach events. 1,256 surveys were completed, submitted and reviewed. Surveys will continue to be used to help identify public knowledge, trends, and to align our program message to the concerns and needs of the public.

E. MCM-2: PUBLIC INVOLVEMENT AND PARTICIPATION (6.4.2 and 8.1.2)**E-1. Provide a Summary of Public Involvement and Participation BMRs Implemented During the Reporting Period in the Following Table**

Best Management Practice	Measurable Goal (how is progress being measured)	Theme or Message	Target Audience	Target Audience Reached	Summary of Results and Effectiveness (8.1.2)
2.4 The Environmental Services Department will organize at least one (1) stormwater related contest annually.	The participation in the stormwater related contest will be recorded and reported annually, which will include the number of participants, subtotals and other applicable data.	Education for the prevention /elimination of stormwater pollution, General information, pick up litter campaign.	General population. (Percent target audience reached is NA).		2.4 The poster contest continues to be successful. There were 362 students from 14 different schools who participated in the poster contest and six (6) sponsors provided contest support.
2.5 The Environmental Services Department and the Department of Transportation will encourage public involvement in activities such as participation in the stormwater contest for school children and participation in clean-up events.	2.5 - Public involvement and participation activities will be recorded and reported annually. Items to be reported annually will include the number of cleanup activities, number of private sponsors and the number of volunteer participants.	Education for the prevention /elimination of stormwater pollution, General information, pick up litter campaign.	General population. (Percent target audience reached is NA).		2.5 -MCDOT's Adopt-A-Highway Program organized multiple clean up events with 551 volunteers contributing 2,106 hours that resulted in the collection of 11,011 tons of trash being removed from 120 miles of roadway. The Maricopa County Parks coordinated and over saw shore line clean up events where 453 volunteers spent 1,039 hours removing trash and debris. Both the poster contest and clean up events have been a very successful and engaging medium for public participation.

E-3. PUBLIC EDUCATION AND OUTREACH (6.4.1)

Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
2.1 The Environmental Services Department will make available the SWMP, Annual Report and other records on-line.	The Stormwater Quality Website with information that includes the SWMP, NOI, Annual Report and other records will be maintained and updated. Website activity will be recorded monthly and reported annually.	Maintain website.	Established and continued in FY19
2.2 The Environmental Services Department will host a stake holder workshop annually.	The date of the stake holder workshop and the number of attendees will be reported annually.	Host a stake holder meeting	Established and continued in FY19
2.3 The Environmental Services Department will provide surveys to the general public. These surveys are used to help spread the message of stormwater pollution prevention and aids in providing feedback to the Maricopa County Stormwater Quality Program.	The amount of surveys provided and received will be recorded monthly and reported annually.	Provide surveys	Established and continued in FY19
2.4 The Environmental Services Department will organize at least one (1) stormwater related contest annually	The participation in the stormwater related contest will be recorded and reported annually, which will include the number of participants, submittals and other applicable data.	Host a poster contest	Established and continued in FY19
2.5 The Environmental Services Department and the Department of Transportation will encourage public involvement in activities such as participation in the stormwater contest for school children and participation in clean-up events.	Public involvement activities will be recorded and reported annually. Items to be reported annually will include the number of cleanup activities, number of private sponsors and the number of volunteer participants.	Host public involvement activities.	Established and continued in FY19

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[illegible]

F. MCM-3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM (6.4.3 and 8.1.2)

F-1. Provide a Summary of Illicit Discharge Detection and Elimination BMPs Implemented During the Reporting Period in the Following Table

Best Management Practice	Measurable Goal (how is progress being measured)	Completed (Yes or No)	Date of Implementation	Percent of Target Audience Reached	Summary of Results and Effectiveness (8.1.2)
3.1-The Environmental Services Department will develop an illicit discharge and improper disposal detection and elimination program.	The County will maintain and update the multifaceted Illicit Discharge and Improper Disposal Detection and Elimination Program through an inspection program. The County has defined was constitutes an illicit discharge in the Maricopa County Stormwater Quality Management and Discharge Control Regulation and the most recent Stormwater Management Plan.	Y	3.1 - 12/2009		3.1 Maricopa County will continue to implement its current IDDE program in order to detect and eliminate illicit discharges to the MS4. The IDDE program is well established and will continue in its present form in FY19.
3.2-The Environmental Services Department and the Flood Control District of Maricopa County will maintain a storm sewer system map with locations of outfalls and receiving WoUs.	3.2 - Maintain /update map as needed.	Y	3.2 - 12/2009, Map completed 9/2017		3.2 Stormwater sewer system mapping is 100% complete for all known structures. M/C will continue to update the MS4 structural Inventory as needed.
3.3 - The Environmental Services Department will enforce the Maricopa County Stormwater Quality Management and Discharge Control Regulation through enforcement actions as detailed in the regulation and through enforcement procedures enacted by the Environmental Services	3.3 - The number of citations and legal actions issued will be reported annually.	Y	3.3 - 12/2009		3.3 - Eight (8) Letters of Violations were issued for this measure in FY18. All violations were resolved without further enforcement action.
3.4 - The Environmental Services Department will review and update if needed the Maricopa County Stormwater Quality Management and Discharge Control Regulation.	3.4 - Any modifications will be recorded and reported annually.	Y	3.4 - 12/2009		3.4 - Legal Authority has been established and continues to be maintained through the Maricopa County Stormwater Quality Management and Discharge Control Regulation.
3.5 - The Environmental Services Department will maintain its Statement of Responsibilities.	3.5 A Statement of Responsibilities has been drafted and will be maintained over time. This document is called the Communication Plan Statement of IDDE Program Responsibilities.	Y	3.5 11/2015		3.5 - The statement of Responsibilities is an effective tool to locate and contact responsible persons within the County.

F. MCM-3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (DDDE) PROGRAM (6.4.3 and 8.1.2)

F-1. Provide a Summary of Illicit Discharge Detection and Elimination BMPs Implemented During the

Best Management Practice	Measurable Goal (how is progress being measured)	Completed (Yes or No)	Date of Implementation	Percent of Target Audience Reached	Summary of Results and Effectiveness (8.1.2)
3.6 The Environmental Services Department and the Maricopa County Department of Transportation will maintain a complaint hotline.	3.6 - All complaints will be investigated and responded to within 15 days of the complaint received date. The number and type of complaints will be recorded and reported annually.	Y	3.6 - 12/2009		3.6 - A total of 210 complaints were processed. MCDOT recorded 165 complaints and 45 complaints were reported and responded to in a timely manner by the MCD Stormwater Program. Types of complaints range from illicit discharges, illegal dumping and construction without proper permits.
3.7 - The Environmental Services Department will create and distribute educational and promotional material.	3.7 - At least 5,000 educational and promotional stormwater pollution prevention pamphlets, brochures and other forms of outreach will be distributed annually. The number of materials distributed will be recorded and reported annually.	Y	3.7 - 12/2009		3.7 - A total of 8,546 educational pamphlets, brochures, and other forms of outreach were distributed in FY18.
3.8 - The Environmental Services Department will develop and implement a visual outfall monitoring program	3.8 A minimum of 20% of all outfalls be inspected annually. The number of outfalls inspected, violations and re-inspections will be recorded and reported annually. Written outfall procedures and reports will be stored on the Stormwater Geographical Information System Data Base.	Y	3.8 - 2/2009		3.8 The UUA is systematically and efficiently monitored and inspected. A total of 237 dry weather outfall inspections and 35 wet weather outfall inspections were conducted, resulting in 61% of all outfalls being inspected. There were 1,799 MS4 structural inspections conducted in FY18. The five (5) representative outfalls received the required inspections for each of the separate wet seasons.
3.9 The Environmental Services Department will create and implement a wet weather outfall monitoring program	3.9 Five (5) representative outfalls will be identified for the visual wet weather monitoring program. Each representative outfall will be inspected twice during each wet season. The number of outfalls inspected, violations and re-inspections will be recorded and reported annually. Written outfall procedures and reports will be stored on the Stormwater Geographical Information System Data Base.	Y	3.9 - 2/2017		3.9 - The UUA is systematically and efficiently monitored and inspected. A total of 237 dry weather outfall inspections and 35 wet weather outfall inspections were conducted, resulting in 61% of all outfalls being inspected. There were 1,799 MS4 structural inspections conducted in FY18. The five (5) representative outfalls received the required inspections for each of the separate wet seasons.

F. MCM-3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (DDDE) PROGRAM (6.4.3 and 8.1.2)

F-1. Provide a Summary of Illicit Discharge Detection and Elimination BMPs Implemented During the

Best Management Practice	Measurable Goal (how is progress being measured)	Completed (Yes or No)	Date of Implementation	Percent of Target Audience Reached	Summary of Results and Effectiveness (8.1.2)
3.10- The Environmental Services Department will conduct a self-evaluation of this measure annually.	3.10 - The self-evaluation may include tracking employee performance standards, complaint response times, public survey responses and analyzing complaints to assess effectiveness of BMPs. The findings will be recorded and reported annually.	y	3.10 - 9/2017		3.10 - Self evaluation is complete. The DDDE program is well established and will continue in its present form in FY19.
3.11- The Environmental Services Department will incorporate IDDE training into the county-wide employee training program.	3.11- The number of trainings and number of employees trained will be recorded and reported annually. Training will be evaluated annually and updated as needed.	y	3.11- 12/2009		3.11 - There are seven (7) IDDE and Good Housekeeping training selections available on-line. A total of 491 employees from 15 different departments participated in an IDDE training session. Of those, 296 employees received an in person training and 195 employees completed 503 on-line classes.
3.12 - The Environmental Services Department will create and implement a program to detect facilities and activities that discharge in to the MS4 without AZPDES/NPDES permit coverage.	3.12 - Activities that appear to need permit coverage will be reported to ADEQ annually.	y	3.12 - 6/2016		3.12 - Two facilities within the UUA that may not have had appropriate AZDEPS/NPDES permit coverage were detected and reported to ADEQ. Systematic monitoring of the UUA is effective and will continue in FY19.

F-6. Illicit Discharge Detection and Elimination
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
3.1 - IDDE Program	3.1 The Environmental Services Department will develop an illicit discharge and improper disposal detection and elimination program.	3.1 The County will maintain and update the multifaceted Illicit Discharge and Improper Disposal Detection and Elimination Program through an inspection program. The County has defined what constitutes an illicit discharge in the Maricopa County Stormwater Quality Management and Discharge Control Regulation and the most recent Stormwater Management Plan.	Established and continued in FY19
3.2 - Stormwater Map	3.2 The Environmental Services Department and the Flood Control District of Maricopa County will maintain a storm sewer system map with locations of outfalls and receiving WQUS.	3.2 Stormwater sewer system mapping is 100% complete for all known structures. MC will continue to update the M/S4 structural inventory as needed.	Established and continued in FY19
3.3 - IDDE Legal Actions	3.3 The Environmental Services Department will enforce the Maricopa County Stormwater Quality Management and Discharge Control Regulation through enforcement actions as detailed in the regulation and through enforcement procedures enacted by the Environmental Services Enforcement Program	3.3 The number of citations and legal actions issued will be reported annually.	Established and continued in FY19
3.4 - Legal Authority	3.4 The Environmental Services Department will review and update if needed the Maricopa County Stormwater Quality Management and Discharge Control Regulation.	3.4 Any modifications will be recorded and reported annually.	Established and continued in FY19
3.5 - Statement of Responsibilities	3.5 The Environmental Services Department will maintain its Statement of Responsibilities. Updates/revisions will be recorded annually.	3.5 A Statement of Responsibilities has been drafted and will be maintained over time. This document is called the Communication Plan Statement of IDDE Program Responsibilities.	Established and continued in FY19

F-6. Illicit Discharge Detection and Elimination
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
3.6 - Complaint Hot-line	3.6 The Environmental Services Department and the Maricopa County Department of Transportation will maintain a complaint hot-line.	3.6 All complaints will be investigated and responded to within 15 days of the complaint received date. The number and type of complaints will be recorded and reported annually.	Established and continued in FY19
3.7 Educational Material	3.7 The Environmental Services Department will create and distribute educational materials and pamphlets.	3.7 At least 5,000 educational and stormwater pollution prevention pamphlets and brochures and other forms of outreach will be distributed annually. The type and number of materials distributed will be recorded and reported annually.	Established and continued in FY19
3.8 Implement Visual Outfall Monitoring and 3.9 Wet Weather Outfall Monitoring program	3.8 and 3.9 The number of outfalls inspected, violations and re-inspections will be recorded and reported annually. Written outfall procedures and reports will be stored on the Stormwater Geographical Information System Data Base 3.9 Each representative outfall will be inspected twice (2) during each (2) wet season.	3.8 and 3.9 A minimum of 20% of all outfalls will be inspected annually. The number of inspected outfalls, violations and re-inspections will be recorded and reported annually. Written outfall procedures and reports will be stored on the Stormwater Geographical data base. Five (5) representative outfalls will be identified for the visual wet weather monitoring program. Each representative outfall will be inspected twice during each wet season.	Established and continued in FY19

F-6. Illicit Discharge Detection and Elimination**Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table**

3.10 IDDE Self Evaluation	3.10 The Environmental Services Department will conduct a self-evaluation of this measure annually.	3.10 The self-evaluation of this measure may include tracking employee performance standards, complaint response times, public survey responses and analyzing complaints to assess effectiveness of BMPs. The findings will be recorded and reported annually.	Established and continued in FY19
3.11 IDDE Training	3.11 The Environmental Services Department will incorporate IDDE training into the county-wide employee training program.	3.11 The number of trainings and number of employees trained will be recorded and reported annually. Training will be evaluated annually and updated as needed.	Established and continued in FY19
3.12 Detection of Non-Permitted Activities	3.12 The Environmental Services Department will create and implement a program to find facilities / activities that discharge to the MS4 without AZPDES/NPDES permit coverage.	3.12 During routine inspections of the County owned MS4, commercial facilities that appear to need AZPDES/NPDES permit coverage will be reported to ADEQ annually.	Established and continued in FY19

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F-2. DESCRIPTION OF CHANGES IN IDENTIFIED BMPs OR MEASURABLE GOALS (8.1.3 and 8.4(1)) BMP modifications: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If yes, provide a brief explanation of each modification below.			
ADEQ Directed (8.1.4) <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> Yes	BMP Modified	Analysis of Why BMP Was Ineffective or Infeasible	Analysis of Why BMP is Expected to Achieve Goals

F-3. IDDE Staff Training (6.4.3.10)			
Frequency of Training	Date of Training Event	Training Subject	Number of Employees Trained
<i>EXAMPLE</i> Semi-annually	October 15, 2017	<i>Learning how to recognize an illicit discharge as part of routine job duties</i>	15
Throughout the year: <input checked="" type="checkbox"/>	Throughout FY18	On-line selections: Stormwater Pollution: Parking and Storage Areas, Stormwater Pollution: <input checked="" type="checkbox"/>	195
Throughout the year: <input type="checkbox"/>	Throughout FY18	In person trainings: "ENV205 - Stormwater Pollution: What is it and How Do We Prevent it?"	296

NOTE: Complete Listing of Online Trainings: On-line selections: Stormwater Pollution: Parking and Storage Areas, Stormwater Pollution: Materials Storage and Spill Clean Up, Stormwater Pollution: Illicit Discharge, Stormwater Pollution: Fleet Maintenance, Stormwater Pollution: Building and Grounds Maintenance, SWPPP- Stormwater Pollution Prevention Plan and SPCC-Spill Prevention Control and Countermeasures.

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F-4. Illicit Discharge Identification and Response (S.4.3.5)							
Date of Discovery	Method of Discovery	Type of Pollutants	Source	Estimated Duration of Illicit Discharge	Estimated Quantity	Date of Elimination	Escalated Enforcement Action Required?
EXAMPLE 9/10/2016	Complaint - Email	Anti-freeze	Auto-repair shop	<1 day	<10 gallons	9/10/2016	No
8/2/2017	Citizen Complaint	water from pipe	Resident/ +	one day	unknown	08/09/2017 +	Referred to FCD +
1/9/2018	Citizen Complaint	sediment	Resident/ +	one day	3 lbs	01/09/2018 +	No/re-inspected/corrected
01/25/2018	Citizen Complaint	Waste water/ +	Resident/ +	once per week	5-10 gallons	01/26/2018 +	No/re-inspected/corrected
01/26/2018	Citizen Complaint	Waste water/ +	Resident/ +	once per week	5-10 gallons	01/26/2018 +	No/re-inspected/corrected
01/26/2018	Citizen Complaint	Waste water/ +	Resident/ +	once per week	5-10 gallons	01/26/2018 +	No/re-inspected/corrected
01/29/2018	Citizen Complaint	waste water	Resident/ +	unknown	5-10 gallons	02/01/2018 +	No/re-inspected/corrected
02/01/2018	Citizen Complaint	oil	Resident/ +	one day	2 quarts	02/01/2018 +	No/re-inspected/corrected
02/08/2018	Citizen Complaint	Waste water/ +	Resident/ +	unknown	unknown	02/09/2018 +	No/re-inspected/corrected
3/7/2018 and 3/9	Citizen Complaint	3/7 waste and +	3/7 and 3/9 +	unknown	unknown	3/9/2018	No/FCD cleaned channel
03/20/2018	Citizen Complaint	motor oil	Business +	one day	2 quarts	03/23/2018 +	No/HOA cleaned
04/02/2018	Citizen Complaint	oil/grease	Business +	one day	3-5 quarts	04/02/2018 +	FCD referred to surprise +
04/17/2018	Citizen Complaint	landscape sand	Resident/ +	one day	10 pounds	04/20/2018 +	No/re-inspected/corrected
06/29/2018	Citizen Complaint	oily green water	Business	< day	unknown	06/29/2018 +	No/re-inspected/corrected

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F-5. Unpermitted Discharges to MS4 (6.4.3.11)

Facility Name	Type of Activity	SIC Code	AZPDES Permit Number (if known)
<i>EXAMPLE – ACME Foundry</i>	<i>Anvil Manufacturing</i>	1234	N/A
Crow Wing Transport	Transportation Service/no discharge/possible need for permit/reported to ADEQ	4121-4231	N/A
Germann Transfer Station	Transfer Station/no discharge/possible need for permit/reported to ADEQ		N/A
		+	
		+	
		+	
		+	
		+	

G. MCM-4: CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL (6.4.4 and 8.1.2)

G-1. Provide a Summary of Construction Activity Stormwater Runoff Control BMPs Implemented During the Reporting Period in the Following Table

Best Management Practice	Measurable Goal (how is progress being measured)	Date of Implementation	Implementation Status (percent complete, date complete, on-going)	Summary of Results and Effectiveness (8.1.2)
4.1. Legal Authority for Construction Activity Compliance	The Environmental Services Department has adopted the Maricopa County Stormwater Quality Management and Discharge Control Regulation. This regulation will be evaluated annually for compliance and any new rules or newly adopted legal authority will be reported annually.	12/01/2009	complete and on-going	Legal Authority is Effective.
4.2. Ordinance for Erosion Control Practices	The Environmental Service Department has adopted the Maricopa County Stormwater Quality Management and Discharge Control Regulation and is consistent with the most recent Flood Control District of Maricopa County (FCDMC) MC Drainage and Policies and Standards, MC Drainage Regulations, MC Subdivision Regulations and Floodplain Regulations and the MC Drainage Manual, Volume III, Erosion Control. Regulations will be reviewed and updated as needed for compliance. Any updates will be reported annually.	12/01/2009	complete and on-going	No new ordinance is required. Currently the FCDMC Drainage Policies and Standards Manual for Maricopa County is being revised. Upon completion of the revision, MC will provide the updated version on their web site.
4.3. Inventory	An on-line inventory of all construction activities was developed in June of 2016. This on-line inventory will be maintained and updated annually. The on-line inventory is stored and maintained in the Stormwater Program's Geographical Information Systems Data Base.	06/01/2016	complete and on-going	Inventory is complete. Mapping software is effective.

G. MCM-4: CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL (6.4.4 and 8.1.2) (continued)

G-1. Provide a Summary of Construction Activity Stormwater Runoff Control BMPs Implemented

Best Management Practice	Measurable Goal (how is progress being measured)	Date of Implementation	Implementation Status (percent complete, date complete, on-going)	Summary of Results and Effectiveness (8.1.2)
4.4 Written Procedures for Site Inspection 4.5 Re-inspection and Enforcement Procedures	4.4 Site inspection procedures have been in place since 2009. Standard Operating Procedure SW-001 was created May 11, 2010 and updated January 12, 2017 to incorporate a prioritization schedule. 4.5 Re-inspection procedures are detailed in SOP: SW-001 and enforcement procedures are in the Maricopa County Stormwater quality Discharge and Control Regulation.	12/01/2009	complete and on-going	Written procedures are effective
4.6 - 4.12 Plan review, training, education, tracking, and complaints	4.6 Site plan review procedures have been established since 2009 and are updated in SOP:SW-001.	12/01/2009	complete and on-going	4.6 Written procedures are effective
4.6 - 4.12 Plan review, training, education, tracking, and complaints	4.7 The number of applications received and reviewed will be recorded and reported annually.	12/01/2009	complete and on-going	4.7 There were 22 site plans submitted and reviewed by program staff.
4.6 - 4.12 Plan review, training, education, tracking, and complaints	4.8 At a minimum, one (1) training will be provided annually. The number of trainings held and the number of staff trained will be reported annually.	12/01/2009	complete and on-going	4.8 Stormwater Quality Program Staff received annual training. Staff members also attended an on-site construction training hosted by Luke Air Force Base.

G. MCM-4: CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL (6.4.4 and 8.1.2) (continued)

G-1. Provide a Summary of Construction Activity Stormwater Runoff Control BMPs Implemented During the Reporting Period in the Following Table

4.6 - 4.12 Plan review, training, education, tracking, and complaints	4.9 An active webpage with educational material will be maintained. Web-site activity will be recorded monthly and reported annually.	12/01/2009	complete and on-going	4.9An active webpage is maintained and provides information for the construction industry. The web-page had 10,979 views and 373 downloads specific to construction which includes applications and regulations.
4.6 - 4.12 Plan review, training, education, tracking, and complaints	4.10 At a minimum, one (1) stake holder workshop will be held annually. The number of workshops and the number of participants will be recorded and reported annually.	12/01/2009	complete and on-going	4.10 A public stake holder meeting was conducted on June 13 and June 20 with a total of 95 persons in attendance.
4.6 - 4.12 Plan review, training, education, tracking, and complaints	4.11 The number of construction inspections, re-inspections, and violations will be documented and the number of enforcement actions will be recorded and reported annually. 4.12 The number of complaints received will be recorded and reported annually. The Environmental Services Department will respond and investigate all complaints within 15 days of the complaint received date. A complaint response (hotline) program will be maintained.	12/01/2009	complete and on-going	4.11-12 There were 51 construction inspections, 16 pre-construction inspections, two (2) re-inspections and eight (8) complaint inspections were conducted in FY18. Eight (8) Letters of Outstanding Violation were generated. All violations were resolved without further enforcement action.

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G-2. Description of Changes in BMPs and Measurable Goals (8.1.3 and 8.4(i))			
BMP modifications: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If yes, provide a brief explanation of each modification below.			
ADEQ Directed (8.1.4)	BMP Modified	Analysis of Why BMP Was Ineffective or Infeasible	Analysis of Why BMP is Expected to Achieve Goals
<input type="checkbox"/> Yes			
<input type="checkbox"/> Yes			
<input type="checkbox"/> Yes			

G-3. Construction Activity Complaints (6.4.4.5 and 8.4(i))	
Number of Complaints Received	Number of Complaint Responses/Resolved
8	8

G-4. Construction Activity Inspections				
Number of Active Construction Sites	Number of Active Construction Sites Inspected	Number of Re-Inspection	Average Inspection Frequency	
27	27	2	28 / SITE	
Number of Violations			Number of Enforcement Actions	
5			0	

G-5. Construction Activity Stormwater Runoff Control
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
4.1 Legal Authority for Construction Activity Compliance	4.1 The Environmental Services Department will maintain legal authority to enforce stormwater runoff during construction activities.	4.1. The Environmental Services Department has adopted the Maricopa County Stormwater Quality Management and Discharge Control Regulation. This regulation will be evaluated annually for compliance and any new rules or newly adopted legal authority will be reported annually.	Established and continued in FY19
4.2 Ordinance for Erosion Control Practices	4.2 The Environmental Services Department and the Flood Control District of Maricopa County will maintain an ordinance that requires the use of sediment and erosion control practices.	4.2. The Environmental Service Department has adopted the Maricopa County Stormwater Quality Management and Discharge Control Regulation and is consistent with the most recent Flood Control District of Maricopa County (FCDMC) MC Drainage and Policies and Standards, MC Drainage Regulations, MC Subdivision Regulations and Floodplain Regulations and the MC Drainage Manual, Volume III, Erosion Control. Ordinances will be reviewed and updated as needed for compliance. Any updates will be reported annually.	Established and continued in FY19
4.3 Inventory	4.3 The Environmental Services Department will create and maintain an inventory of construction activities.	4.3 An on-line inventory of all construction activities was developed in June of 2016. This on-line inventory will be maintained and updated annually. The on-line inventory is stored and maintained in the Stormwater Program's Geographical Information Systems Data Base.	Established and continued in FY19
4.4 Site inspection procedures 4.5 Re-Inspection	4.4 The Environmental Services Department will formalize written procedures in the form of Standard Operating Procedures.	4.4 Site inspection procedures have been in place since 2009. Standard Operating Procedure SW-001 was created May 11, 2010 and updated January 12, 2017 to incorporate a prioritization schedule.	Established and continued in FY19
4.5 Re-Inspection / enforcement Procedures	4.5 The Environmental Services Department will maintain re-inspection and enforcement procedures.	4.5 Re-inspection procedures are outlined and detailed in SOP: SW-001 and written enforcement procedures are outlined in SOP SW-014 and in the Maricopa County Stormwater Quality Discharge and Control Regulation.	Established and continued in FY19

G-5. Construction Activity Stormwater Runoff Control (continued)
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
4.6 Site Plan Procedures	4.6 The Environmental Services Department will create and maintain site plan review procedures.	4.6 Site plan review procedures have been established since 2009 and updated in SOP:SW-001.	Established and continued in FY19
4.7 Site Plan Review	4.7 The Environmental Services Department will record the number of permit applications received and reviewed.	4.7 The number of applications received and reviewed will be recorded and reported annually.	Established and continued in FY19
4.8 Training	4.8 The Environmental Services Department will develop, implement and incorporate into the existing training program, education and training specifically on construction activity stormwater runoff for employees who conduct activities related to implementing the construction stormwater program.	4.8 At a minimum, one (1) training will be held annually. The number of trainings held and the number of staff trained will be reported annually.	Established and continued in FY19
4.9 Education / Public Involvement	4.9 The Environmental Services Department will make available educational materials for the development community.	4.9 An active webpage with educational material will be maintained. Web-site activity will be recorded monthly and reported annually.	Established and continued in FY19
4.10 Education / Public Involvement	4.10 The Environmental Services Department will participate in a stake holder workshop annually.	4.10 At a minimum, one (1) stake holder workshop will be held annually. The number of workshops and the number of participants will be recorded and reported annually.	Established and continued in FY19
4.11 Tracking and record keeping	4.11 The Environmental Services Department will maintain a tracking and record keeping program for the construction program.	4.11 The number of construction inspections, re-inspections, and violations documented and the number of enforcement actions will be recorded and reported annually.	Established and continued in FY19
4.12 Complaint Response Program	4.12 The Environmental Services Department will maintain a complaint response (hot-line) program.	4.12 The number of complaints received will be recorded and reported annually. The Environmental Services Department will respond and investigate all complaints within 15 days of the complaint received date.	Established and continued in FY19

II. MCM-5: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (6.4.5 and 8.1.2)

H-1. Provide a Summary of Post-Construction Activity Stormwater Runoff Control BMPs Implemented

During the Reporting Period in the Following Table

Best Management Practice	Measurable Goal (how is progress being measured)	Completed (Yes or No)	Cite Local Code(s) Being Used (If available, web link for code(s))	Summary of Results and Effectiveness (8.1.2)
5.1 Maricopa County Planning and Development, Flood Control District of Maricopa County and the Maricopa County Environmental Services Department will maintain and enforce programs to address post-construction stormwater runoff.	Maricopa County has developed and will enforce the following ordinances: Maricopa County Stormwater Quality Management and Discharge Control Regulation, Maricopa County Drainage Policies and Standards, Maricopa County Drainage Regulations, Maricopa County subdivision Regulations and Maricopa County Floodplain Regulations. Legal mechanisms and ordinances will be maintained and updated as needed.	Y	Maricopa County has developed and will enforce the following ordinances: Maricopa County Stormwater Quality Management and Discharge Control Regulation, Maricopa County Drainage Policies and Standards, Maricopa County Drainage Regulations, Maricopa County subdivision Regulations and Maricopa County Floodplain Regulations. Legal mechanisms and ordinances will be maintained and updated as needed.	Codes are effective. BMPs listed in the code are sufficient. No changes needed.
5.2 The Environmental Services Department will develop and distribute technical guidance and educational materials for post construction stormwater management.	Guidance and educational materials will be made available on the Stormwater web-page. At least 500 guidance and educational materials will be distributed annually. The number of materials distributed and the number of web-page hits will be recorded and reported annually.	Y	N/A	There were a total of 12,854 page views and 588 educational /technical materials were downloaded from the county web page. Web-site is current and continues to receive activity.
5.3 The Environmental Services Department will implement and maintain a site plan review process.	At least 1 employee will be assigned to conduct post construction plan reviews. The number of staff performing reviews and the number of applications received and reviewed will be recorded and reported annually.	Y	N/A	A staff of 1 was maintained for FY18. There were four (4) post construction plans submitted and reviewed for FY18. Staffing is efficient.
5.4 The Environmental Services Department will maintain the post construction inspection program.	Post-construction permits will be inspected annually. The number of post-construction inspections, the number of violations observed, number of corrective actions and any enforcement actions will be recorded and reported annually.	Y	N/A	In FY 18, there were 31 post construction inspections, zero (0) re-inspections, three (3) complaints and three(3) Letters of Outstanding Violations. All actions were resolved with no further enforcement. All post construction permits were inspected annually. Due to the County being annexed, the number of permits fluctuates annually. Inspection program is well established and efficient.
5.5 The Environmental Services Department will maintain an up to date inventory of post-construction structural stormwater control measures.	An inventory of post-construction structural stormwater control measures has been developed and will be maintained. Inventory is stored both in paper format and is also available on the Geographical Information System database.	Y	N/A	An inventory of all post-construction stormwater structural controls has been created and maintained using the County's ARC GIS system. System is efficient.

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H-2. Post-Construction Stormwater Management in New Development and Redevelopment (8.4(j))			
Number of Sites Requiring Post-Construction Controls		Number of Post-Construction Stormwater Controls Inspected	
4		31	
Number of Post-Construction Stormwater Control Violations		Number of Post-Construction Stormwater Control Violations Resolved	
0		0	

H-3. Description of Changes in BMPs or Measurable Goals (8.1.3 and 8.4(i))			
BMP modifications: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If yes, provide a brief explanation of each modification below (Add Rows as Necessary).			
ADEQ Directed (8.1.4)	BMP Modified	Analysis of Why BMP Was Ineffective or Infeasible	Analysis of Why BMP is Expected to Achieve Goals
<input type="checkbox"/> Yes			
<input type="checkbox"/> Yes			
<input type="checkbox"/> Yes			

H- Post-Construction Stormwater Management in New Development and Redevelopment (6.4.1)
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
5.1 - Regulatory Mechanism for Post-Construction Stormwater Controls	Maricopa County Planning and Development, Flood Control District of Maricopa County and the Maricopa County Environmental Services Department will maintain and enforce programs to address post-construction stormwater runoff.	Maricopa County has developed and will enforce the following ordinances: Maricopa County Stormwater Quality Management and Discharge Control Regulation, Maricopa County Drainage Policies and Standards, Maricopa County Drainage Regulations, Maricopa County subdivision Regulations and Maricopa County Floodplain Regulations. Legal mechanisms and ordinances will be maintained and updated as needed.	Established and continued in FY19
5.2 - Technical Guidance and Educational Materials.	The Environmental Services Department will develop and distribute technical guidance and educational materials for post construction stormwater management.	Guidance and educational materials will be made available on the Stormwater web-page. At least 500 guidance and educational materials will be distributed annually. The number of materials distributed and the number of web-page hits will be recorded and reported annually.	Established and continued in FY19
5.3 - Site Plan Reviews	The Environmental Services Department will implement and maintain a site plan review process.	A staff of at least 1 will be assigned to conduct post construction plan reviews. The number of staff performing reviews and the number of applications received and reviewed will be recorded and reported annually.	Established and continued in FY19
5.4 - Inspections	The Environmental Services Department will maintain the post construction inspection program.	Post-construction permits will be inspected annually. The number of post-construction inspections, the number of violations observed, number of corrective actions and any enforcement actions will be recorded and reported annually.	Established and continued in FY19
5.5 - Inventory	The Environmental Services Department will maintain an up to date inventory of post-construction structural stormwater control measures.	An inventory of post-construction structural stormwater control measures has been developed and will be maintained. Inventory is stored both in paper application format and is also available on the Geographical Information System database.	Established and continued in FY19

F-6. Illicit Discharge Detection and Elimination
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Facility Name (Group Facilities as Appropriate)	Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities (8.1.2)
	6.1 - Street Sweeping 6.2 - Municipal Inventory	6.1 The number of miles swept will be recorded and reported annually. The current frequency and schedule for street sweeping is as follows: 16 weeks for arterial streets 8 weeks for residential streets 2 weeks for special cycle streets. 6.2 The inventory will be maintained and updated annually.	6.1 The County's street sweeping program conducted 6,912 miles of sweeping during FY18. 6.2 All County owned or leased facilities have been inventoried using the County's ARC GIS mapping system.
	6.3 - Facility Prioritization	6.3 The priority facility inventory was created in June of 2016. This inventory will be maintained and updated annually.	6.3 Priority list is created and maintained. There are 46 priority facilities and 382 are non-priority.
	6.4-6.5 Inspections	6.4 - 6.5 A minimum of 20% of all facilities will be inspected annually and all priority facilities specifically will be inspected annually by the Environmental Services Department. The Equipment Services Department will maintain a regular inspection program of four (4) facilities that receive regularly scheduled inspections.	6.4 - 6.5 All 46 priority facilities have received an annual inspection and 164 inspections were conducted at non-priority facilities, resulting in 54% of all facilities being inspected in FY18. Equipment Services performed a total of 1,043 inspections. Waste Resources and Recycling Division conducted a total of 70 inspections. The Municipal Inspection program is well established and efficient.
	6.6 - Training	A minimum of two (2) educational workshops will be provided. The number of workshops provided and the number of attendees will be recorded and reported annually.	A total of ten (10) in person workshops were provided to 296 employees. There are seven (7) on line classes that are made available to County employees. A total of 503 online classes were taken by 195 employees from 15 different departments. Employee training program is well established and efficient.
	6.7 - Maintenance and Inspection	The Department of Transportation will maintain a fully staffed roadway operation division and the Flood Control District will maintain a fully staffed operation and maintenance division. The Environmental Services Department will maintain staff to preserve the proactive MS4 inspection program	The operation and maintenance (O&M) divisions are maintained by the Flood Control District of Maricopa County (FCD/MC) and by the Maricopa County Department of Transportation (MCDOT). FCD/MC has a O&M staff of 63 and MCDOT has a current O&M staff of 184 who routinely maintain stormwater structures. Environmental Services Department has had two full time inspectors for FY18. Operations, maintenance and inspections programs are well established and efficient.

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J. Receiving Waters and Monitoring (7.9)					
Name of Receiving Water Included in Appendix B	Number of Outfalls	Receiving Water Listed as impaired, not-attaining and/or OAW	Listed Pollutants	TMDL	Analytical Monitoring Conducted this Reporting Year?
Agua Fria	12			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cave Creek	4			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
McMicken Wash	6			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
New River	4			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Queen Creek (T) and Salt River (AT)	14			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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[illegible]

I-4. Pollution Prevention and Good Housekeeping for Municipal Operations
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
6.1 - Street Sweeping	6.1 The Department of Transportation will maintain a regular street sweeping program.	6.1 Number of miles swept will be recorded and reported annually. The current frequency and schedule for street sweeping is as follows: 16 weeks for arterial streets 8 weeks for residential streets 2 weeks for special cycle streets	Established and continued in FY19
6.2 - Inventory	6.2 The Environmental Services Department, Risk Management and Equipment Services will keep an inventory of all county owned or leased facilities.	6.2 The inventory will be maintained and updated annually.	Established and continued in FY19
6.3 - Facility Prioritization	6.3 The Environmental Services Department will prioritize facilities through an internal evaluation based on their associated risk of potential pollutant discharge.	6.3 The priority facility inventory was created in June of 2016. This inventory will be maintained and updated annually.	Established and continued in FY19
6.4 - Inspections	The Environmental Services Department and the Equipment Services Department will maintain an inspection program for County owned or leased facilities.	A minimum of 20% of all facilities will be inspected annually by the Environmental Services Department. The Equipment Services Department will maintain a regular inspection program of their four (4) facilities that receive regularly scheduled inspections.	

I-4. Pollution Prevention and Good Housekeeping for Municipal Operations (continued)

Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities	Proposed Schedule
6.5 - Priority Inspections	The Environmental Services Department will maintain an inspection program for Priority Facilities.	100% of all priority facilities will be inspected annually by the Environmental Services Department.	Established and continued in FY19
6.6 - Training	The Environmental Services Department, Risk Management, Department of Transportation and Flood Control will provide training materials to staff involved in the implementation of a SWPPP, the Maricopa County SWMP or a practice that is related to Stormwater Pollution Prevention.	A minimum of two (2) educational workshops will be provided. The number of workshops provided and the number of attendees will be recorded and reported annually.	Established and continued in FY19
6.7 - Maintenance and Inspection	The Department of Transportation and the Flood Control District will maintain a maintenance program of County owned infrastructure. The Environmental Services Department will Maintain the proactive inspection program of the entire MS4 to identify potential sources of pollution.	The Department of Transportation will maintain a fully staffed roadway operation division and the Flood Control District will maintain a fully staffed operation and maintenance division. The Environmental Services Department will maintain staff to preserve the proactive MS4 inspection program.	Established and continued in FY19

I-4. Pollution Prevention and Good Housekeeping for Municipal Operations (continued)
Provide a Summary of Activities Planned for the Next Reporting Period in the Following Table

Facility Name (Group Facilities as Appropriate)	Best Management Practices	Measurable Goal (steps to measure progress)	Summary of Planned Activities (8.1.2)
	6.6 - Training	A minimum of two (2) educational workshops will be provided. The number of workshops provided and the number of attendees will be recorded and reported annually.	A total of ten (10) in person workshops were provided to 296 employees. There are seven (7) on line classes that are made available to County employees. A total of 503 online classes were taken by 195 employees from 15 different departments. Employee training program is well established and efficient.
	6.7 - Maintenance and Inspection	The Department of Transportation will maintain a fully staffed roadway operation division and the Flood Control District will maintain a fully staffed operation and maintenance division. The Environmental Services Department will maintain staff to preserve the proactive MS4 inspection program	The operation and maintenance (O&M) divisions are maintained by the Flood Control District of Maricopa County (FCDMC) and by the Maricopa County Department of Transportation (MCDOT). FCDMC has a O&M staff of 63 and MCDOT has a current O&M staff of 184 who routinely maintain stormwater structures. Environmental Services Department has had two full time inspectors for FY18. Operations, maintenance and inspections programs are well established and efficient.

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Certification

The annual report must be signed by either a principal executive officer or ranking elected official, or by a duly authorized representative (refer to Permit Part 9.9(a)).

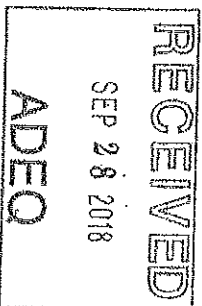
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Darcy Kober, RS

Date (mm/dd/yyyy) 9/24/18

Name (printed) Darcy Kober, RS

Title Director





SMALL MS4 DISCHARGE MONITORING REPORT (DMR) FORM FOR PERMIT NO. AZG2016-002

E. Certification

<p>Darcy Kober, ES</p> <p>Typed or Printed Name/Title of Principal Executive Officer or Authorized Agent</p>	<p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>	<p>Darcy Kober, ES 9/24/18</p> <p>Signature of Principal Executive Officer or Authorized Agent</p>	<p>Date</p>
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E-mail of Principal Executive Officer or Authorized Agent

darcy.kober@mail.maricopa.gov

